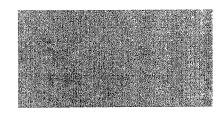
JPRS 71653

9 August 1978

WORLD EPIDEMIOLOGY REVIEW No. 100









Reproduced From Best Available Copy

20000501 151

U. S. JOINT PUBLICATIONS RESEARCH SERVICE

DISTRIBUTION STATEMENT A

Approved for Public Release Distribution Unlimited JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22151. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available through Bell & Howell, Old Mansfield Road, Wooster, Ohio, 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

BIBLIOGRAPHIC DATA	JPRS 71653	[2.		3. Recipient	's Accession No.
4. Title and Subtitle	, 1033	<u> </u>		5. Report D	0.7.0
WORLD EPIDEMIOLO	GY REVIEW, No. 100			1 -	ugust 1978
	, o. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		*2	6.	agust 1976
			;		
7. Author(s)				8. Performin	g Organization Re
Performing Organization 1 Joint Publication	Name and Address as Research Service			10. Project/	Task/Work Unit No
1000 North Glebe			•	11. Contract	/Great No
Arlington, Virgin	nia 22201				, orant no.
2. Sponsoring Organization	Name and Address			13. Type of	Report & Period
A.				Covered	
As above			•		·
		•		14.	
5. Supplementary Notes			***************************************	<u> </u>	
. Abstracts	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			
The report conta	ins worldwide aross s-1	radia		٠	
and other aspects	ins worldwide press and	radio cov	erage of in	cidence,	outbreak,
sanitation condi-	s of human, animal, and	plant dis	eases, inse	ct pests	and control
Santtation Condi-	tions, immunization and	public he	alth progra	ıms.	•
				• • •.	
Key Wede and Downson					
	Analysis. 17a. Descriptors			•	
Worldwide	·			•	
Worldwide Clinical Medicine	·			•	
Worldwide Clinical Medicine Environmental Bio	, logy			•	
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit	, logy			•	
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit	, logy			•	
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit	, logy			•	
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit	, logy			•	
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit	, logy			•	
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit Microbiology	ology ation			•	
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit Microbiology	ology ation			•	
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit Microbiology	ology ation			•	
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit Microbiology	ology ation			•	
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit Microbiology	ology ation				
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit Microbiology	ology ation			•	
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit Microbiology	ology ation				
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit Microbiology dentifiers/Open-Ended T	ology ation				
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit Microbiology dentifiers/Open-Ended To	ology ation				
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit Microbiology De Identifiers/Open-Ended Total COSATI Field/Group 23 Availability Statement	ology ation Terms E, 6E, 6F, 6I, 6M		19. Security Clas	• (This	21. No. of Pages
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit Microbiology b. Identifiers/Open-Ended To COSATI Field/Group 2 Availability Statement Unlimited Availabi	ology ation Terms E, 6E, 6F, 6I, 6M		Report) UNCLASSI	FIED	51
Worldwide Clinical Medicine Environmental Bio Hygiene and Sanit Microbiology b. Identifiers/Open-Ended To c. COSATI Field/Group 23 Availability Statement	ology ation Ferms E, 6E, 6F, 6I, 6M lity		Report)	FIED	

JPRS 71653 9 August 1978

WORLD EPIDEMIOLOGY REVIEW

No. 100

	Contents		Page
	HUMAN DISEASE	S	
BURMA			
Akya	b Cholera Claims 19 (THE WORKING PEOPLE'S DAILY,	15 Jul 78)	1
Brie:			
	Jan-Jun Cholera Deaths Cholera in Singaing		2 2
BURUNDI			
Brie			
	Anti-Cholera Measures		3
EGYPT			
B il ha	rzia Treatment Center Inaugurate (LE JOURNAL D'EGYPTE, 27 Jun 7	ed 78)	•• 4
Brief			
	Cholera Case in Cairo		5
INDONESIA			
Brief	s		
	Cholera in Parung		6
NAMIBIA (SOU	TH-WEST AFRICA)		
Combo			
Conta	gious Diseases From Angola Kept (DIE SUIDWESTER, 25 May 78)	Out	. 7
Brief	s		
	Malta Fever		9
	- a -	[III - INT -	134]

CONTENTS (Continued)	Page
NIGERIA	
Conference on Spinal Meningitis Held Near Kano (NEW NIGERIAN, various dates)	10
Report on Communique, by Ibrahim A. Biu Statistics on Victims, Editorial Report School Immunization Program, by Jerry Ejem	
SINGAPORE	
Briefs Drop in Dengue Fever	12
SOUTH AFRICA	
Malaria Threatens Disease-Free Areas (THE STAR, 20 Jul 78)	13
SUDAN	
Minister of Health Discusses Improvements in Health Services (Khalid Hasan 'Abbas Interview; AL-AYYAM, 8 Jun 78)	14
SWAZILAND	
Briefs	
Malaria Toll Triples	24
TURKEY	
Nationwide Parasitic Cyst Study Initiated (Metin Ozyildirim; MILLIYET, 24 Jun 78)	25
Briefs Cypriot Doctors Request Work Gumushane Physician Shortage	27 27
VIETNAM	
Briefs Nha Trang Pasteur Institute	28

2 •

CONTENTS (Continued)	Page
ZAMBIA	
Briefs Measles Outbreak	29
ANIMAL DISEASES	
BRAZIL	
African Swine Fever Spreads in Sao Paulo (O ESTADO DE SAO PAULO, 7 Jul 78)	30
Briefs Swine Fever Control New Swine Fever Focuses Swine Fever Measures	34 34 34
BURMA	
Intensive Campaign Against Foot-and-Mouth Disease (THE MORNING PEOPLE'S DAILY, 19 Jul 78)	35
Vets in Sagagyi Treat Food-and-Mouth Disease, Anthrax (THE WORKING PEOPLE'S DAILY, 17 Jul 78)	37
COLOMBIA	
Cattle Institute Denies African Swine Fever Presence (Radio Cadena Nacional, 25 Jul 78)	38
KENYA	
Briefs Black Water Fever Outbreak	39
MAURITANIA	
Official Discusses Disease Prevention Campaign (Limam El Hadi Interview; CHAAB, 23 Jun 78)	40
MEXICO	
Briefs Mossures Against Swine Fever	42

CONTENTS (Continued)	Page
NAMIBIA (SOUTH-WEST AFRICA)	
Briefs	
Rabies Kills 400 Kudus Rabid Kudu, Cow	43 43
URUGUAY	
Government Orders Action To Circumvent African Swine	
Fever (AFP, 27 Jul 78)	44
VIETNAM	
Briefs	
Vinh Phu Epidemic Eradication	45
PLANT DISEASES AND INSECT PESTS	
KENYA	
No Locust Danger to Kenya at Present (DAILY NATION, 19 Jul 78)	. 46
VIETNAM	
Briefs	•
Insect Extermination Campaign	47
Nghia Binh Pest Control	47
Ben Tre Pest Extermination	47 47
Long An Leafhopper Extermination	47

AKYAB CHOLERA CLAIMS 19

Rangoon THE WORKING PEOPLE'S DAILY in English 15 Jul 78 p 1

[Text]

AKYAB, II Jul—Nineteen_persons in Akyab Township have

died of cholera since the last week of May.

A total of 455 persons suffering from gastroenteric disorders were admitted to the People's hospital here up to 7 July. Of them, 19 persons died at the hospital and cholera germs were found from 52 persons.

Due to increasing number of persons suffering from gastroenteric disorders, the Akyab Township Party Unit has drawn up a project for combating cholera and has been carrying out intensive anti-cholera measures in Akyab as a mass movement after forming three township supervision sub-committees.

JAN-JUN CHOLERA DEATHS—There were 156 fatalities out of 1,943 cholera cases reported in the whole country in the first 6 months of 1978. According to the statistics received by the Health Department, 48 cases with 11 fatalities were recorded in Kachin State; 40 cases with 11 fatalities in Karen State; 562 cases with 13 fatalities in Mon State; 60 cases with 3 fatalities in Shan State; 116 cases with 12 fatalities in Pegu Division; 445 cases with 26 fatalities in Magwe Division; 80 cases with 11 fatalities in Mandalay Division; 284 cases with 55 fatalities in Irrawaddy Division; 237 cases with 3 fatalities in Rangoon Division; and 66 cases with 10 fatalities in Arakan State. There were 2,942 cases with 172 fatalities in 1975, 1,103 cases with 158 fatalities in 1976 and 2,723 cases with 210 fatalities in 1977. [Rangoon WORKING PEOPLE'S DAILY in English 19 Jul 78 p 1 BK]

CHOLERA IN SINGAING--An outbreak of cholera, affecting five persons, in Ywahaung-Gon Village of Singaing Township has spread to Paleik Town and Kinton, Mithwebok and Chaungzon villages. As a result, of the 30 persons suffering from gastroenteric disorders, six persons have died. Necessary precautionary measures are being undertaken by the authorities. [Rangoon LOKTHA PYEITHU NEZIN in Burmese 6 Jul 78 p 5 BK]

BURUNDI

BRIEFS

ANTI-CHOLERA MEASURES--Bujumbura (Burundi)--Shaking hands has been banned in Burundi--as part of the Government's military-scale operation to combat the spread of cholera which hit this central African republic last month. Apart from the ban on handshakes, authorities have prohibited the sale of food from the cholera zone and outlawed fishing in Lake Tanganyika. [Text] [Windhoek THE WINDHOEK ADVERTISER in English 9 Jun 78 p 3]

BILHARZIA TREATMENT CENTER INAUGURATED

Cairo LE JOURNAL D'EGYPTE in French 27 Jun 78 p 2

[Text] Dr 'Abd-al-Mun'im 'Azm, president of the Academy of Scientific and Technological Research, opened the inauguration ceremony for the Theodor Bilharz Institute. The first facility of its kind in the Middle East, the institute will do research on schistosmiasis and other diseases endemic in Egypt.

In his speech at the ceremony Dr 'Abd-al-Mun'im 'Azm stated that bilharzia has caused an estimated \$120 million worth of losses on the African continent. The losses were caused by the sapping of human energy, the lack of production and the cost of treatment.

Dr Abd-al-Mun'im 'Azm also stated that the instance of this disease in Egypt has increased to 40 percent of the population. In the rural areas, the increase has been frightening. "It was thus necessary to create this sort of institution," he said.

The Theodor Bilharz Institute includes sections for the study of tropical diseases and medical chemistry, as well as a 120 bed hospital. Seventy-two researchers work in the center.

Egyptian and African medical circles place great importance on this institute which could play a significant role in the fight against bilharzia and other endemic diseases impeding the country's economic progress.

Dr Gert Stenziok, an official charge d'affaires of the Federal Republic of Germany, also attended the ceremony.

A number of German doctors also attended the ceremony. The West German government has contributed greatly to the creation of the institute. It outfitted the facility with the equipment necessary for its operation.

9161

EGYPT

BRIEFS

CHOLERA CASE IN CAIRO--Cairo, 15 July--It was announced here today that a Saudi who arrived in Cairo from Riyadh yesterday was found to be suffering from cholera. Egyptian Health Ministry Under Secretary Dr Ahmad al-'Aqqad has stated that the Saudi citizen has been isolated to prevent the disease from spreading. He added that the Arab Republic of Egypt is completely free from cholera. [Text] [Doha QNA in Arabic 1508 GMT 15 Jul 78 NC]

INDONESIA

BRIEFS

CHOLERA IN PARUNG--Jakarta, 21 July (AFP)--Eleven people have died of cholera in Parung subdistrict, some 40 kilometers (25 miles) south of here, during the past 5 days, the large circulation Jakarta daily KOMPAS reported today. The report said the cholera outbreak hit several villages in the Parung area since 17 July and about 70 people were affected by the disease. Eleven of them died of dehydration and exhaustion. More than 6,500 villagers in the area have been vaccinated thus far. [Text] [Hong Kong AFP in English 0454 GMT 21 Jul 78 BK]

CONTAGIOUS DISEASES FROM ANGOLA KEPT OUT

Windhoek DIE SUIDWESTER in Afrikaans 25 May 78 p 8

[Excerpt] Effective control and immunization of a great number of refugees from Angola has prevented serious diseases such as cholera, yellow fever and smallpox from entering South-West Africa.

This has been made evident through the general survey of the Health Services Department as contained in the White Book on the activities of the various sections of the administration over the past year. The most important event during 1977 was the final establishment of independence for the Department of Health and Welfare in Ovambo and the taking over of the health services by the Kavango Government and the Damara authority.

In the course of the year an agreement was also negotiated with the Administration of Cape Province and Stellenbosch University for merging Windhoek's hospital complex with the university's medical faculty as a satellite training center for the off-campus training of doctors. This plan is envisaging considerable advantages for South-West Africa.

The survey also indicates that special attention will be given to the extension of training nurses in South-West Africa through better qualified training which previously could only take place in the Republic.

Unstable conditions on the northern borders and a continuing stream of refugees increases the influx of dangerous diseases, but during the past year this situation has been well under control and it is being watched over very carefully right now. No cases of cholera have been announced. Because of the situation in Angola, the South-West is also exposed to the spread of yellow fever, but strict control has resulted in there being no announcements of cases of this disease during 1977.

On the other hand plague is still latent among the veld ruminants of Ovambo and a number of bubonic plague cases also appeared in the course of the past year. The necessary precautionary measures were taken, however, and these are still being maintained. All cases of plague are confined to the region of Eheke, west of Ondangua, where a big epidemic was raging in 1974.

Three cases of sleeping sickness have appeared in West Caprivi. There have been no reported cases of smallpox and the measures for combating malaria are being pursued in Ovambo, Kavango, Bushmanland, Hereroland, Damaraland and Kaokoland. Intestinal disease is still appearing in Kavango, although it has abated considerably. The stagnant water source in the Kavango River is the source of infection for the contagious disease.

Recurrent fever is also, for the most part, still confined to Kavango, while many cases of tuberculosis have recurred again. Immunization of the country's population against contagious diseases has been started again on an organized basis and has yielded the necessary results.

7964

MALTA FEVER--Groot Aub--Last year eleven-year-old Annemarie van Wyk was only skin and bone when her mother had brought her to the clinic arranged by the Nauaspoort Company of 41 Battalion at Groot Aub. Today she is back at school, a healthy girl, with the Nauaspoort Company acting as a kind of guardian angel over her. Annemarie was absent from school for the better part of the last semester in 1977. Early in November she was taken to the Windhoek State Hospital by the commanding officer at Nauaspoort, Captain S. W. Moolman. It was initially thought that she was suffering from a serious degree of malnutrition, but later the diagnosis was changed to Malta Fever. Malta Fever is an infection from goat's milk and can be very serious. Annemarie's infection was already in a very advanced stage, when she was taken to the hospital. After six weeks' treatment with antibiotics, she was cured. [Excerpts] [Windhoek THE WINDHOEK ADVERTISER in English 13 Jun 78 p 2]

CONFERENCE ON SPINAL MENINGITIS HELD NEAR KANO

Report on Communique

Kaduna NEW NIGERIAN in English 14 Jul 78 p 1

[Article by Ibrahim A. Biu]

[Text]

SULPHONOMIDE vaccine, otherwise known as SUTA, and other drugs in the same group should not be administered for treating, eradicating or containing cerebro-spinal meningitis (CSM) in this country.

In addition, Mezathine injection should no longer be administered to victims of the disease as it has been discovered to be relatively ineffective.

These recommendations were made at the end of the four-day international conference on the control and eradication of cerebro-spinal meningitis (CSM), which recently ended at the Bagauda Lake Hotel, near Kano

A communique issued yesterday on the deliberations of the conference said that after extensive research carried out between 1962 to 1977 in different West African countries, it has been discovered that the bacteria which carries the disease has become increasingly resistant to the sulphur drugs.

The communique said henceforth, only vaccines such as Prophylasis should be used for treating and containing the disease

because it has been discovered that the vaccine could prevent its recurrence for a period of three years after the drug had been administered.

The experts also suggested that Mezathine injection should now be replaced with Crystalline penicillin injection which is already being used in Kano State.

The communique also disclosed that an experiment was now being conducted in rural areas by a team of experts from Ahmadu Bello University, Zaria. It said that already, it has been discovered that Pripmopen vaccine could be administered to patients after every six hours for a period of five days. It said "Tifomycin (3GM)" had also shown the same time of curative effect on patients.

Statistics on Victims

[Editorial Report] Kaduna NEW NIGERIAN in English on 5 July 1978, pages 1 and 21, publishes an article by Ibrahim A. Biu reporting Kano State Governor Colonel Sani Bello's address to the opening of the conference in which he "disclosed that in Kano State alone, about 17,596 people were affected by the disease, while 768 people died of the disease between 1976 and this year. He said in some areas of the state where medical treatment was difficult to obtain about 314 of the patients reported to have been affected by the disease died."

School Immunization Program

Kaduna NEW NIGERIAN in English 8 Jul 78 pp 1, 2

[Article by Jerry Ejem]

[Excerpt]

THE Federal Military Government (FMG) has drawn up a programme for the immunisation of about 80 per cent of the population of school age pupils against cerebro spinal meningitis (CSM).

A total of four million doses of vaccine would also be purchased and distributed during this financial year by Federal Ministry of Health to the states most affected by the disease.

These facts were disclosed on Thursday by the Permanent Secretary of the Federal Ministry of Health, Mr. E.O. Omoyele, in a speech he delivered at the opening of a workshop on CSM at Bagauda Lake Hotel near Kano. He said in addition that the Federal Ministry of Health would continue to seek external aid especially from the World Health Organisation (WHO).

Mr. Omoyele revealed that this year, the WHO would provide Nigeria with 200,000 doses of the combined A and C vaccine. He added that as soon as the doses of the vaccine, were received from WHO, they would be distributed to the states according to need.

DROP IN DENGUE FEVER--The outbreak of dengue haemorrhagic fever [DHF] in Singapore appears to be on the decline. The ministry of the environment said yesterday that the number of notified cases over the past week has decreased. There were 188 notified cases of DHF since January of which 81 were confirmed. Vector control measures are being intensified during the outbreak. The ministry said 32,144 premises have been swing-fogged and 32,626 inspected. A total of 767 orders and 34 summonses were served under the destruction of disease-bearing insects act and 26,000 health education pamphlets on prevention of mosquito breeding have been distributed. [Text] [Singapore THE STRAITS TIMES in English 21 Jul 78 p 14 BK]

cso: 5400

MALARIA THREATENS DISEASE-FREE AREAS

Johannesburg THE STAR in English 20 Jul 78 p 1

[Text]

A malaria epidemic is looming in parts of South Africa and the disease is threatening to spread to areas previously free of malaria because erradication attempts have so far failed.

The situation has been described as "potentially explosive" by Dr E W Albertyn, of the Health Department, Durban.

threat that makes the extension and intensification of anti-malarial activities an urgent priority," he is quoted as saying in Health News, the Department's newsletter.

Dr H G V Kustner, the department's epidemiologist at Pretoria, is reported as saying the present malaria epidemic is "considerable."

Not only has the risk of infection risen far beyond expected levels in the affected areas, but substantial regions so assiduously freed from malaria in the past are at risk of once again becoming endemic areas," said Dr Kustner.

Present affected areas are northern and eastern Transvaal. Dr Kustner said anti-malarial activities were intensified last year because of the substantial deterioration in the situation.

But these efforts did not meet with the success anticipated and the situation has deteriorated further.

MANPOWER

A shortage of manpower and facilities has been blamed for the failure of the campaign, and efforts are now being made to build up funds for the anti-malaria fight.

Dr Kustner said considerable costs would be involved in trying to rid previously malaria-free regions of the disease.

"The economic prosperity which has come to (freed areas') is also in jeopardy," he said.

But delay and hesitation in fighting the disease may have disastrous consequences.

MINISTER OF HEALTH DISCUSSES IMPROVEMENTS IN HEALTH SERVICES

Khartoum AL-AYYAM in Arabic 8 Jun 78 pp 6, 7

[Interview with Maj Gen Khalid Hasan 'Abbas by Usamah Sayyid 'Abd-al-'Aziz: "Minister of Health Tells AL-AYYAM 'Health Is Investment in Human Resources; It is One Pillar of Development'"]

[Text] The achievements of the Ministry of Health from the 25th of May 1969 until today have surpassed our imagination and our expectations. The ability of this ministry to serve and to give of itself is unsurpassed.

Minister of Health Mr Khalid Hasan 'Abbas has been one of the May leaders when [health services consisted of] a plan which has now surpassed the fragmentation [of plans] and challenged the limited resources [of Sudan]. It was Mr 'Abbas who brought forth the medical revolution, thereby achieving savings to the public treasury that approached 6 million pounds. He also hit upon an inexhaustible supply of continuous funding for all the constructive health projects that seek to elevate human standards, to contain epidemics—to eradicate and exterminate them—to provide a healthy climate and to make preparations for its endurance.

This is because the human being constitutes the capital of national revolutions.

The statements that are made above were not an introduction to the minister of health; they constitute facts that have materialized quietly and altruistically. This [mode of action] is the basic characteristic of the revolutionaries.

We, therefore, asked His Excellency a question about the course of his ministry's work.

[Answer] We have kept up with the declared policies and goals of the ministry. These are represented in the following: improving the environment; developing therapeutic and preventive services; affirming the increasing concern for man's health and prosperity because he is the backbone [of society] and is capable of growth and creativity. It is an effort to maintain the slogans that construe health care as an investment in human resources and, therefore, one of the pillars of development.

Preventing disease and improving the environment are two steps towards an economically sound investment. In order to conform to the directions and the priorities that were announced in the step-by-step work programs and in order to conform to the decisions that were made by the Central Committee of the Socialist Union and to the president's directions which must be implemented, the Ministry of Health has exercised considerable care to ensure that the objectives of its achievements do provide a minimum of health services to the Sudanese citizen. Through implementation and programming it is translating [into action] the slogans and the priorities that have been set and the directives and decisions that have been issued.

Although the basic target was to concentrate on services and to improve performance standards by developing and modernizing services, the ministry's achievements, its support of self-help programs and its predetermined aid achieved all their objectives and exceeded all expectations.

[Question] Would Your Excellency please talk to us in some detail about the achievements of preventive medicine?

[Answer] For the first time in the history of preventive medical services an administrative agency has been established and designated to attend to contagious and indigenous diseases throughout the country.

Capabilities and qualified staff members have been provided for this agency for the purpose of enriching and developing this kind of specialist by means of academic qualifications, field training and guided research.

Specialized units and departments conduct their operations under the supervision of this administrative agency on the highest level of the regions in the following manner:

- The Tropical Diseases Hospital in Omdurman, 1974;
- 2. Four units for contagious diseases and indigenous diseases in the following areas:
- A. Abu 'Ashar, 1974;
- B. al-Ubayyid, 1974;
- C. al-Qadarif, 1976;
- D. al-Fashir, 1976;
- 3. Construction of a unit for indigenous diseases in al-Damazin, 1977;
- 4. During the first year of the Six-Year Plan the following units were established: Kuraymah, Yambio, al-Duwaym.
- The Wadi Halfa quarantine station, 1974;
- The Sawakin quarantine station;
- 7. The port health unit in Port Sudan;
- 8. Three quarantine stations were also built during the first year of the Six-Year Plan in Kassala, al-Junaynah and Nimule.

With the cooperation of our sister Egypt the administrative agency was able to implement the anti-(al-Jambiya) project in the northern part of the country. That part is now free [of this disease], and the project is progressing successfully. It is hoped that the experiment will be extended southward so as to include all parts of the Northern Province.

Mobile land and river medical units have been imported. They have the most modern equipment that includes comprehensive services in preventive social, therapeutic and diagnostic medicine.

Contagious Diseases

[Question] How did the ministry curb contagious diseases?

[Answer] Intestinal influenza which was widespread in the country from 1970 to 1972 has been brought under full control.

This was possible because efforts on the national and on the local level were joined together. This spared the country major losses in lives and funds.

The ministry was also able to keep the cholera epidemic outside the country during the 1974 pilgrimage season.

Scientific research to determine the effectiveness of the anti-meningitis vaccine was completed in 1974-1975. The vaccine proved to be effective, and a program to faccinate students was introduced. The total number of students who were vaccinated amounted to 307,000. This resulted in a 10 percent decline in the number of meningitis cases in Khartoum Province. This figure continued to decline, and we can now say that in the past few years we have not seen an outbreak of the disease throughout the country as was customary in the past.

Relapsing fever in the Blue Nile Province has been brought under full control, and typhoid fever in the provinces of al-Jazirah, North Kordofan, and both North and South Darfur has been brought under control also.

Indigenous Diseases

[Question] What is the extent of your activity in the area of indigenous diseases?

[Answer] At first, let us say that the indigenous diseases are malaria, bilharzia, smallpox, kala azar, tuberculosis, sleeping sickness, blindness, trachoma and eye diseases, and leprosy.

Malaria

In 1974 we encountered technical obstacles in our anti-malaria campaign. Malaria carrying mosquitoes had developed immunity, and this required a change in plans. The mosquitoes had to be attacked in their water habitat in al-Jazirah Province where they reproduce. Experiments were completed with the pesticide malathion which proved effective in breaking down the mosquitoes' immunity to the commonly used pesticides.

Hence 2,046 villages were sprayed with the effective, long-lasting malathion pesticide.

Doses of the charaquine drug have been distributed to 1,213,000 citizens. As a result of these measures the rate of affliction with malaria has declined from 21.6 percent to 3.8 percent. Our efforts in this area are continuing so that we can soon announce that Sudan is free from malaria.

Bilharzia

Continuing research has enabled us to discover a new effective pesticide, (friskine), for combating this disease. We have covered 2,000 feddans with this pesticide, and this has led to the decline from 100 percent to 14 percent in the number of snails. Studies are now underway to determine the occurrence of bilharzia cases among the residents of the areas that have been covered by the pesticide.

Smallpox

Smallpox has been brought under complete control. A total of 16,904,858 citizens have been vaccinated against smallpox at a cost of 35 milliemes per person.

It is noteworthy, and we are proud of this record, that we have not had a single confirmed case of smallpox in the country since November 1972.

The anti-smallpox project seeks to continue the vaccination process for the purpose of raising the standard of immunity to the point where we can continue to keep Sudan free from smallpox.

At the same time the project seeks to protect the borders from infiltration of infection from neighboring countries by establishing traveling groups to monitor and inspect the border. Sudan's contribution in combating the disease around and inside the eastern border has been considerable.

Kalaazar (Visceral Leishmaniasis)

This disease represents a limited medical problem in the southern part of the Blue Nile Province, in the Upper Nile Province and in the southern part of Kassala. A unit for the prevention of indigenous diseases has been established in Malakal especially to look after this disease. Mobile medical units will contribute significantly to the diagnosis and treatment of this disease.

A contract has been signed with the World Health Organization to operate a limited program in this activity. Research has also been conducted internationally and locally to determine the most successful methods of fighting this disease, especially with regard to the ways infection is carried. Treatment for the cases that have been diagnosed has also been intensified, one case after the other, and necessary drugs have been provided.

Pulmonary Tuberculosis

A total of 3,256,147 male and female citizens have been immunized against pulmonary tuberculosis.

Hospital wards for chest diseases have been established in Waw, Port Sudan, al-Ubayyid, Kassala, Sannar, 'Atbarah, Halfa al-Jadidah, Nyala al-Fashir and al-Duwaym.

Vaccination and re-vaccination operations and treatment of patients have continued for the purpose of eradicating this disease in the near future, God willing.

Sleeping Sickness

This disease constitutes a limited health problem in West Equatoria. An agreement has been reached with the WHO to bring this disease under control again and to make the means of treatment and prevention available.

Day Blindness [Hemeralapia]

Six stations to discover and treat cases of day blindness have been established. The Ministry of Health and the WHO have a joint project to intensify treatment for this disease. The sum of 48,000 pounds had been allocated during the development plan for 1976 and 1977 to strengthen this project.

Approximately 1.5 million pounds have been allocated in the Six Year Plan to intensify efforts to fight and to treat this disease so that the number of cases can be reduced and prevented, especially among children.

Trachoma and Eye D seases

After a long series of research tetracycline ointments have proven to be effective in the treatment of trachoma. Accordingly, a comprehensive project was drawn up to cover all residents of the Nile and northern provinces. A total of 630,980 residents received treatment, and this gave Sudan a good reputation in international circles. This moved us to establish a higher institute to provide training in fighting trachoma in 'Atbarah. The sum of 13,000 pounds had been allocated for the [treatment and prevention of this disease] in the 1976-1977 development budget.

Leprosy

A complete plan with regard to this disease has been drawn up.

- 1. A national council for the relief of lepers is to be formed.
- 2. A training center for those working to fight leprosy is to be built in accordance with an agreement with the German Leprosy Association. The Dutch government has also agreed to supply the center with machines and equipment.

18

- 3. Clinics and specialized centers are to be established in Tambura and Rumbek in conjunction with the Catholic church.
- 4. A comprehensive medical survey has been conducted in South Kordofan Province for the purpose of eliminating the disease from the mountains of Nubia.

A leprosy unit has been built in Talawdi within the framework of the project that had been agreed upon with the WHO. This unit will treat the contagious cases and will reduce the rate of disfigurement. It will provide persons who have been afflicted with the disease with the opportunity to return to society as working, productive individuals.

Social Medicine

[Question] Do you offer medical services of a preventive nature to special sectors and groups?

[Answer] We call this kind of service social medicine. At present it includes caring for mothers and children, caring for health in the schools, immunizations and vaccinations, nutrition and health education.

We thought we would collect these services in specialized administrative agencies that we would call Social Medicine Complexes. Staff and capabilities have been provided to turn these complexes into well-coordinated units offering services on the highest level in the provinces.

The health insurance program for students will be very helpful in providing and developing these services and in providing the financial and the technical capabilities for them.

The university hospital that is to be built soon falls into this category.

Environmental Health

[Question] The ministry has been charged with failure to offer environmental health services. What do you think of this accusation?

[Answer] I acknowledge that the ministry's environmental health services are deficient, but the reason for this is that environmental health services come under the budgets of the executive people's councils. This includes garbage disposal [operations]; trash collection; fighting mosquitoes and flies; intensifying sanitation inspection on water sources, restaurants, machines, equipment and local products; [monitoring] the continued increase in the population; and [monitoring] migration to the cities and refugees from neighboring countries.

Therapy

[Question] Has therapy remained in step with the uninterrupted achievements in the field of medical services?

[Answer] Therapy has indeed undergone an extensive upswing that began with the integration of therapeutic and preventive services.

If we were to discuss this in figures, we would say that during this period it was possible to make the following achievements:

1. A total of 57 hospitals have been built. Most of them have been built in Sudan's rural areas, in areas that had not received such services previously and in areas where development projects and workers are located.

A total of 57 wards have been established: 18 of these were paid for by the development [budget], and 39 wards were paid for by the residents. Establishment of these institutions has made it possible to achieve an increase of 5,000 beds over the number of beds that were available in 1969. The number of beds now exceeds 19,000 beds.

2. Regional and central hospitals have been provided with intermediary, ancillary services represented in providing X-ray diagnostic equipment, laboratories and pharmacies; and in providing a suitable number of blood banks. This has significantly reduced pregnancy and post-partum complications and, consequently, the percentage of deaths.

Staffs of specialists have been hired by high-level officials in the provinces in most hospitals, and specialized units have been established in some hospitals. Specialists carry out specialized functions in surgery, internal medicine, ophthalmology, dentistry, gynecology and obstetrics.

The development and the improvement of medical services in the capitals of the new provinces have been made possible. This will enable these services to rise to the standard of those that are available in similar capitals. Intermediary and ancillary services have been introduced in many of these service [units].

Our work is concentrated on intensifying these services in order to achieve all their requirements.

Significant developments and modernizations have been introduced into the area of hospital educational services in the Tricity capital. This would enable [the hospitals] to carry out the momentous functions they were charged with locally and throughout the country. It would amount to considerable savings for the state in hard currencies which would have been spent for treatment abroad.

This advanced innovation required that we explore many horizons in modernizing and improving buildings. We reconsidered the construction maps for the purpose of establishing the architectural designs that would serve different purposes and would provide larger spheres in programming as well as gradual vertical and horizontal expansion.

Consequently, hospital design has become a specialty in and of itself. Three architects have been sent abroad, and they have acquired the required specialization and training.

In some areas we have begun to make use of local building materials in construction. This will provide considerable savings in allocations and will increase achievements.

We have implemented a program which seeks to provide water and electricity in all existing hospitals. We have begun improving the sewage system in some of these hospitals.

To keep pace with technological development in medical tools and equipment we have begun to modernize the medical tools and equipment which we have had for almost a century. We have procured surgical apparatus and equipment, sterilization equipment and blood bank equipment. These acquisitions have enabled specialists to embark upon new horizons in applying the most modern practices in medicine, therapy and diagnosis.

We now have a nuclear therapy center that is considered very valuable by the entire continent.

We also have a dialysis department whose achievements were crowned with the successful surgical implantation of kidneys.

The ophthalmology hospital is also practicing the most modern procedures in eye surgery. Major international specialists attest to the fact that it makes us eligible to compete on an international level.

The cosmetic surgery and dentistry hospital came into being as a giant facility capable of carrying out all treatments in this area.

We have an emergency pediatrics hospital whose advanced equipment and excellent capabilities have reduced infant mortality.

Diagnostic services are now undergoing considerable change through the use of laryngoscopes in digestive tract disorders.

The development of the National Laboratory in Khartoum and the inauguration of regional laboratories have enabled the employees of this administrative agency to extend their laboratory services to the regions. This has given the regions the opportunity to benefit from these services after they had been confined to the Tricity capital.

In the area of medical and vital statistics, especially since [these data] constitute a significant basis for developing and evaluating services for assisting in conducting research and health surveys, it was possible to introduce advanced equipment which significantly helped raise the standard of performance quantitatively and qualitatively. [The improved performance standards] increased production and performance efficiency.

At present this department conducts its business by computer and by using the devoted capabilities of the staff who have established an operations room to follow up on a disease and eliminate it immediately wherever it might be.

Training and Qualifying

[Question] What about the standard of training and qualifying employees?

[Answer] All this was accompanied by an escalation and an intensification of training for physicians, for professional, technical and semi-professional cadres in all the training institutions. This filled the remaining gaps that were created by the establishment of modern institutions.

[Examples of such training can be found in] the Nurses' Training Institute; in the Higher Institute for Midwifery where nurses specialize in gynecology and obstetrics; in the X-ray Institute; the Health Statistics Institute; the nursing schools; and in schools for midwives, home nurses, general medical assistants, ophthalmology and dental assistants, surgical room attendants, legal midwives, laboratory assistants and anesthetic assistants.

Training included sending students abroad to make use of qualifying them in areas that are not available locally, especially in the maintenance of complicated tools and equipment and in post-graduate qualifying work for intricate specializations.

The opportunity to specialize on higher levels has been made available inside the country to physicians. We hope we will reap the fruits of [this effort] in future years.

Services are now undergoing a comprehensive review [to assess] all the training needs in the curricula and in the equipment and to raise standards in the context of the pre-determined educational policy.

Health Centers

[Question] What is your next step in the area of health?

[Answer] We are always trying to complete authoritative hospital services. This requires that we develop referral services further by introducing additions, improvements and necessary furnishings to turn the hospitals and clinics into facilities that offer comprehensive therapeutic, preventive and environmental health services.

We are thereby giving the ordinary citizen an opportunity to find a reasonable standard of services in his own district without trouble.

Self Help

[Question] Have national capitalism and popular aid played a role in keeping the flame of the medical revolution burning?

[Answer] National capitalism has contributed to the construction of numerous health centers and hospitals. The names of the good people are many, and the achievements are splendid, simply splendid. We pray God to repay them many times for their services.

Many good people are still offering to contribute to the construction [effort]. Suitable locations will be designated [for these projects].

All the creative achievements were generated by popular aid contributions. It may be said that this aid has contributed effectively and that results have exceeded the planned rates.

AL-AYYAM

We thank Mr Khalid Hasan 'Abbas for his generosity in responding to our questions even though he was due to leave in a few hours to Geneva to attend a WHO conference. We spent half of these few hours in this interview which portrayed the May achievements in an area [of services] that affects citizens.

8592 cso: 5400

MALARIA TOLL TRIPLES--Manzini--Malaria deaths have more than trebled in Swaziland so far this year, according to the governments' Malaria Control Unit. In the whole of 1977, 25 people died of malaria. So far this year, 87 deaths have been attributed to the disease. Mr Peter Mathews, head of the Malaria Control Unit, called for greater efforts to curb malaria and "avoid a recurrence" of the disease in such large numbers. Mr Mathews also noted that malaria has been reported in southern Swaziland for the first time in 25 years. He said that prophylactic anti-malaria medicines are being distributed in the Swazi lowveld on a massive basis. The outbreaks of malaria were due to the unusually heavy rain this year. [Text] [Johannesburg THE STAR in English 19 Jul 78 p 9]

cso: 5400

NATIONWIDE PARASITIC CYST STUDY INITIATED

Istanbul MILLIYET in Turkish 24 Jun 78 p 13

[Article by Metin Ozyildirim]

[Text] A disease which spreads from dogs to humans and to livestock and causes cysts in internal organs is the subject of a widespread survey initiated by the Istanbul University's Faculty of Medicine in Edirne. The purpose is to find out how wide the disease has spread in Edirne. Physicians of the General Directorate of Health and Social Aid and Edirne Faculty of Medicine personnel expect the survey to last 1 year. It will cover 27 villages and 19,000 people who will be examined one by one. On the basis of the data the survey will yield, a decision will be taken on whether there should be a nationwide campaign. The survey, which started on 9 June and uses the sampling method, is managed by Dr Suat Vural, dean of the Edirne Faculty of Medicine, and Dr Ratip Kazancigil, director of the Health and Social Aid Directorate of Edirne.

What Is Hydatid Cyst?

Hydatid cyst, which is the focus of the Edirne Medical Faculty's survey among 19,000 people, is a very hard to cure disease. It attacks almost any internal organ of a human being, but it is generally seen in the lungs and the liver, where it embeds itself and forms a fluid-filled sac. The infective agent is a parasite that humans receive from dogs, and dogs receive it from livestock when they eat their infected organs. It is a disease with a wide scope and involves the dog-man-cattle trio where the interrelation is very close. That is why, the Edirne Medical Faculty is undertaking this endeavor to ascertain the incidence rate of the disease in the human-dog-cattle trio. The endeavor will also include treatment of infected humans, control of the disease, and cleaning of the area of the parasite.

How Will the Survey Be Conducted?

It was announced that humans will be the first group to be checked for the disease. People in the highly vulnerable age bracket of 15 to 35 in selected villages will be examined. Livestock and dogs in the same villages will be the next group to be checked for the disease. The third stage of the survey will entail compilation of the records of infected people under

treatment in area hospitals. In the final phase, data acquired in the previous phases will be evaluated and, on the basis of the evaluation, a decision will be reached on whether the campaign should continue.

Economic Harm

The hydatid cyst disease harms the country's economy, as well as its people and animals. An estimated 50 percent of the animals in Turkey is believed to be infected. Destroying infected organs, totally or partially, results in a considerable loss of nutritious foodstuff.

Statistics show that, in Istanbul, in the 3-year period between 1975 and 1977, 3,623, 139 small livestock, such as sheep and goats, and 117,499 large livestock were slaughtered, of which 33,326 were calves, 15,955 were cows, and 68,318 were oxen. The lungs and the liver of a sheep or a goat weigh 2 to 2.5 kilograms. In larger animals, the liver of a calf, for example, weighs 2.5 to 3.5 kilograms, and the liver of a cow, or an ox, is 4 to 4.5 kilograms. Lungs of a calf weigh between 2 and 3 kilograms, and those of a cow, or an ox, weigh 3.7 to 4.2 kilograms. On the basis of those figures, livers and lungs of the animals slaughtered in that specific period of time come to 7,246 tons. Discarding 25 percent of what we get on account of a cyst is tantamount to a loss of 2,050 tons of valuable protein and nutriments. Considering that the rate of waste reaches 50 percent, the economic loss caused by hydatid cyst is nothing that can be ignored. A protein-poor country as Turkey cannot afford the "loss of liver" the disease causes, because it means people will not have proper food to deveto capacity. lop

CYPRIOT DOCTORS REQUEST WORK—Cypriot doctors denied permission to work in Turkey have requested that with the passage of the "Full Day Law" /Tam Gun Yasasi/ they now be accorded this permission. Cypriot physicians, who are specialists at various hospitals, have stated: "We are prepared to work in every region of Turkey in order to meet the nation's need for physicians. While permission has been granted to graduates of medical school to remain in Turkey, they may not receive wages. We are not granted the right to become Turkish citizens. If nothing else, give us the right to work!" Cypriot doctors, who claim that there is no need for doctors in Cyprus while there is a need for doctors in Turkey, state: "There are nearly 500 of us in Turkey. We studied at Turkish schools. We want to work in Turkey. We are now working for nothing. We do not wish to serve any other country. With the passage of the "Full Day Law" and the increased need for physicians, we too wish to be of service." /Text7 /Istanbul MILLIYET in Turkish 14 Jul 78 pp 1,147

GUMUSHANE PHYSICIAN SHORTAGE—In Gumushane province, which has a population of nearly 300,000, the doctor-patient ratio has reportedly fallen to 1 doctor for every 12,000 patients. According to an investigation conducted by a TURKISH NEWS AGENCY reporter, some 35 doctors examine and treat over 5,000 persons a day at the 2 hospitals, 3 health centers, 30 health clubs, and 92 health houses of Gumushane. There is a total of 700 beds at the hospitals and health centers of Gumushane to service the entire province. /Excerpts//Istanbul MILLIYET in Turkish 10 Jul 78 pp 1,14/

NHA TRANG PASTEUR INSTITUTE—In the first 6 months of the year, besides overfulfilling the plan for production of vaccines and serums, the Nha Trang Pasteur Institute has intensified guidance over prophylactic activities in an effort to prevent and control epidemics in central Trung Bo protices. Thanks to this, cases of plague have dropped to one-sixth of those recorded during the same period last year. [Hanoi Domestic Service in Vietnamese 0400 GMT 8 Jul 78 BK]

MEASLES OUTBREAK--Four children have died as a result of an outbreak of measles at Tefelansoni Rural Health Centre in Chief Mwangala's area in Chadiza district. Confirming the report in Chadiza recently, Chadiza District Health inspector Mr Allan Mbewe said that 21 children were detained at the Rural Health centre. He said that a team of immunisation campaign staff from his office would leave for the chief's area in order to control the outbreak. [Text] [Lusaka ZAMBIA DAILY MAIL in English 15 Jul 78 p 5]

AFRICAN SWINE FEVER SPREADS IN SAO PAULO

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 7 Jul 78 p 23

[Text] The Sao Paulo office of the Ministry of Agriculture yesterday confirmed the existence of African swine fever focuses in three more Sao Paulo municipalities (Itapira, Tupi Paulista and Serra Negra) and the Secretariat of Agriculture announced that 3,395 pigs have already been slaughtered in the state because of the disease. According to the secretary of agriculture, Paulo da Rocha Camargo, the federal government will begin paying compensation to the Ourinhos hog breeders next Monday. However, according to reports from Brasilia, the payment may be delayed for a few days.

Thus far, according to information from the Ministry of Agriculture, African swine fever has been confirmed by laboratory tests in cattle farms of the following Sao Paulo municipalities: Leme, Ourinhos, Vera Cruz, Bananal, Avare, Araras, Pirassununga, Roseira, Ribeirao Preto, Araraquara, Tupi Paulista, Serra Negra and Itapira. It is also stressed that "there are suspected focuses" in Jundiai, Taubate, Pindamonhangaba, Altinopolis, Candido Mota and Pradopolis.

The national secretary of agricultural protection, Jose Alberto Lira, announced yesterday in Brasilia that the team responsible for studying the economic impact of the African swine fever eradication campaign is concluding the final details for establishing criteria to be considered in analyzing requests for compensation, including price to be paid per animal, who is to be compensated and other technical data. Requests for payment must be submitted to the campaign's state subcommissions in Parana, Sao Paulo, Santa Catarina, Rio de Janeiro, Minas Gerais and Goias.

Lira also announced that in the states where African swine fever focuses exist only cold-storage plants with perfect sanitary conditions will be authorized for slaughter. "If in the course of doing so we should happen to favor monopoly, that would be of no concern to the sanitary protection agency; our major objective is to avoid spreading the disease," he said. He announced that the wild pigs inhabiting regions of the Itumbiara and Morrinhos municipalities in Goias will be the object of a hunting expedition, since they are carriers of the disease. All existing species of swine will be slaughtered.

The secretary then asserted that, to prevent a repetition of events such as occurred in the case of Umuarama, which was put on the list of municipalities infected by swine fever and then later taken off it, the Ministry of Agriculture will only report cases in which it is absolutely certain that the disease is present, that is, after the tests have been entirely completed. He explained that at first, when the immunofluorescence test was positive the focus had been considered highly suspect. However, it could happen that in the second test, that of homoadsorption, the result could be negative. In such a case it is necessary to make the culture-slide test to confirm the suspicion.

"The highly suspect case will be reported only to the field staff, so that the slaughtering operation may begin immediately," Lira said, "since we cannot run the risk of waiting 10 days to see whether or not it is confirmed. Should the final result be negative, the owner of the pigs will then be entitled to compensation."

Regarding statements by the aeronautics minister the day before yesterday in which he rejected the hypothesis that the disease had entered Brazil through leftover food at Galeao airport, Lira again asserted that, if only as a matter of consistency, he is still of the opinion that in the case of Rio de Janeiro strong suspicion exists that the contamination originated in the airport's garbage.

The Ministry of Health, in a note distributed yesterday, endorsed the position of the aeronautics minister, asserting that foods of animal origin brought aboard Angolan ships arriving in Brazil in 1976, live animals, "and even the clothing and footwear of travelers coming into contact with animals, could be considered as a way of introducing a virus; a more probable way than via the food served on board international airlines." The note also reports a list of ships coming from Angola and their respective ports of call.

Ribeirao and Araraquara

The DIRA [expansion unknown] of Ribeirao Preto is sponsoring an "epidem-iological investigation" to discover the existence of swine affected by the African fever within a 5-kilometer radius of the place where a focus was discovered. According to veterinarian Jose Luiz da Costa Ribeiro, head of the Animal Hygiene Protection Section, slaughtering will only be ordered for herds having a sick animal.

In the city's north zone, where the focus exists, there are estimated to be 2,000 swine, despite the legal prohibition against keeping them in the urban area. Nearly 2 weeks after having taken preventive action in ordering the slaughter of 140 animals, even before determining the presence of African fever, DIRA now announces that there will not be indiscriminate slaughter in the region.

Wherever an infected herd is found, it will be made to determine whether any animal had been transported and where those that are already in the area came from. This "epidemiological investigation," begun when the suspicion of focuses arose, will continue without any date set for its conclusion, according to Costa Ribeiro.

In Araraquara, where a focus of African fever was also discovered, the DIRA will slaughter 80 animals in the Retiro locality, where four pigs have died. Beyond this, the existence within a 5-km radius of sick animals to be slaughtered will be probed.

The Ribeirao Preto DIRA is still waiting for the result of analyses regarding the herds of Altinopolis and Pradopolis. In the first municipality, two animals died more than 15 days ago, when the material was sent to Rio de Janeiro to be analyzed. In Pradopolis, in the residential area of the Sao Martinho mill, the suspicion arose last week: one of four pigs kept by one of that company's workers died with symptoms of the fever.

Veterinarian Joao dos Santos Neves, chief of the rabies prevention service, an agency of the Osasco city government, asserted yesterday that the incidence of swine fever that is occurring in Brazil is due to the negligence of the Agriculture Ministry. According to him, the fever had been reported a year ago by Sao Paulo hog raisers affiliated with the FAESP [expansion unknown] in a secret report to the Ministry of Agriculture, but no one took any interest in the matter or took steps to prevent its spread.

And he asked: "Do the places for quarantining on the coastal islands of Brazil still exist, or are they a thing of the past? Or could it be that we are still imbued with the idea that our nation is so powerful that it can go forward under any circumstances, despite its careless citizens?"

Santa Catarina

Military Police in Santa Catarina yesterday began slaughtering swine infected by African fever in the Armazem municipality. The 417 pigs, killed by rifle fire, were placed in ditches and incinerated. The Secretariat of Agriculture is still waiting for the results of laboratory tests to learn whether Sao Partinho municipality, near Armazem, was also infected by the fever.

For the time being, the secretariat has dismissed the possibility of slaughtering the entire herd of the region infected so far, which has about 30,000 animals. The owners of the pigs killed yesterday will be compensated.

Pork for Lunch

Pork tenderloin, roast piglet, pork chops and ham, all in great quantity, served with a bean dish containing pork giblets and sausage. With this lunch furnished yesterday to Rio de Janeiro reporters who were covering

the swine fever outbreak, the Rio de Janeiro secretary of agriculture, Jose Resende Peres, began the campaign for the people of the state to resume eating pork after an abstention that has lasted 2 months, brought on by discovery of the first focus of the disease in Paracambi.

Peres believes that his picture in the newspapers and his appearance on television broadcasts, holding out a piglet's head, will be a practical way of convincing the citizens of Rio de Janeiro state that swine fever does not attack human beings, even if the pig is infected with the virus. Despite the informal atmosphere, the secretary explained that "the refusal to eat pork could directly influence the people's cost of living, because beef, which is already scarce, is expensive and in Central Brazil an "arroba" [about 15 kg] costs 400 cruzeiros."

8834

SWINE FEVER CONTROL—The Agriculture Ministry intends to set up a permanent scheme of sanitary inspection for soybean handling and processing installations, similar to that for the inspection of installations processing animal products for export. This information was provided in Brasilia to Romanian and German sanitation experts by the president of the executive commission for the control of African swine fever. The experts came to Brazil to investigate problems with that disease. This inspection scheme will also be extended to ships transporting soybeans and its byproducts for the international market. This control scheme is being studied by the Agriculture Ministry on a priority basis. [Text] [Sao Paulo Cadeia Verde Amarela in Portuguese 1000 GMT 29 Jul 78 PY]

NEW SWINE FEVER FOCUSES--Hog producers in Campinas, Sao Paulo, are concerned over the discovery of the first African swine fever focus in the region. Two producers have lost their entire herds. [Sao Paulo Cadeia Verde Amarela in Portuguese 1000 GMT 2 Aug 78 PY]

SWINE FEVER MEASURES--Representatives of the soybean industry of Parana and Rio Grande do Sul will meet with technicians of the Agriculture Ministry in Brasilia tomorrow to discuss implementation of the health preventative measures suggested by the delegations of Romania and the GDR, who are in Brazil examining the industrialization and transportation of soybean products. [Brasilia Domestic Service in Portuguese 1 Aug 78 PY]

INTENSIVE CAMPAIGN AGAINST FOOT-AND-MOUTH DISEASE

Rangoon THE MORNING PEOPLE'S DAILY in English 19 Jul 78 pp 1, 4

[Text]

RANGOON, 18 Jul—The Veterinary and Animal Husbandry Department, Ministry of Agriculture and Forests, has been carrying out intensive measures or eradication of foot-and-mouth disease in Hmawbi, Taikkyi, and Hlegu Townships under a special project.

The project is aimed at preventing draft cattle belonging to farmers from the foot-and-mouth disease in the above three townships where special high yield paddy cultivation programme is being implemented.

Hmawbi and Taikkyi Townships were reportedly free from foot-and-mouth disease for about two years. The disease however has been reported again in the townships since the beginning of June

A total of 1,879 draft cattle suffered from the disease in 38 village tracts of Hlegu Township; 4,634 cattle in 44 village-tracts of Hmawbi Township and 6,188 cattle in 38 village-tracts of Taikkyi Township.

The spread of disease in the three townships is due to the fact that constant communications and travellings have been made by people and cattle between Taikkyi Township and Yandoon Township; and between Hinawbi Township and Htantabin Township.

People and cattle from Kayan, Thongwa, Hmawbi and Taikkyi Townships also travelled to Hlegu Township. Another factor is that grazing grounds are also connected with each other in the townships.

Due to the widespread occurrance of the foot-and-mouth dis-

ease, the Veterinary and Animal Husbandry Department under the close co-operation of the respective Township Party and Council functionaries, various levels of Peasants Asiayones members, departmental personnel and local peasants down cattle fairs: closed restricted the movement of cattle from one area another, kept cattle ted with disease in quarantine and made arrangements to keep separate grazing grounds and drinking water between cattle stricken with disease and healthy

These activities were carried out as a national movement to keep the foot-and-mouth disease under control and besides, in these three townships, animal health, and artificial insemination work was

carried out under the World Bank aid programme, as they are included the livestock deve-lopment zones, the Veteri-nary and Animal Husban-dry Department has also allotted the strength of employees in proportion to the head of cattle in the area and medicines have also been given in sufficient quantities and that is why the foot-and-mouth disease has been brought under control in these townships.

Of the cattle stricken with the disease, 47 per cent in Hlegu, 90 per cent in Hmawbi and 68 per cent in Taik-kyi have recovered and are now put into field work. Medicines are being given to 576 head of cattle who are still

Due to lack of rain and severe heat in some parts of the country this year, there was scarcity of animal feed weakening the cattle's resistance to diseases.

The Veterinary and Animal Husbandry Department has been despatching sufficient medicines to the areas where foot-and-mouth disease broke out. Besides, specialist teams are also being sent to attend to the sick animals.—NAB

VETS IN SAGAGYI TREAT FOOT-AND-MOUTH DISEASE, ANTHRAX

Rangoon THE WORKING PEOPLE'S DAILY in English 17 Jul 78 p 1

[Text]

SAGAGYI, 12 Jul—The mobile team of veterinarians was dispatched to Sagagyi Township to deal with the outbreak of cattle disease in the area following reports in the Working People's Daily (WPD 30 June 1978) about the prevalance of foot and mouth disease in the region said the leader of the mobile team yesterday.

This statement was made by U Ko Ko Lay (Assistant Lecturer), leader of No 2 team of veterinarians of the Veterinary and Animal Husbandry Department at a meeting held at People's Council Office here yesterday.

The meeting was attended by members of Township Party Unit, People's Council, Peasants and Workers Asiayones, veterinarians, Head of Danubyu Township Veterinary and Animal Husbandry Department U Saw Aung, and other officials.

Members of the team visited 74 villages of 13 village-tracts and give treatment to cattle from 4 to 10 July, he added.

The team discovered that some cattle died because they failed either to take preventive inoculation or treatment, he noted. He also said that in some cases team found that the cattle died of anthrax and not foot and mouth.

He also pointed out that though there were fatal cases in Ngani, Thayawhla and Thebyu villages, some died of cold, some died of anthrax and some died because they were bitten by snakes.

Members of the team treated 604 out of 1,740 cattle in 13 village-tracts of Sagagyi Township. They also gave general treatment to buffaloes, owen and goats. —(257)

CATTLE INSTITUTE DENIES AFRICAN SWINE FEVER PRESENCE

Bogota Radio Cadena Nacional in Spanish 1730 GMT 25 Jul 78 PA

[Text] Bogota--The Colombian Agricultural-Cattle Institute [ICA] today emphatically denied the existence of outbreaks of African swine fever in Tolima and Cundinamarca departments. The institute said in a communique that this grave possibility has no basis in fact.

[Begin recording] Colombia remains free of African swine fever. The sanitation authorities of the ICA state that, regarding the information published on page 12-A of the newspaper EL TIEMPO on 25 July 1978 under the byline of the Girardot correspondent concerning the existence of African swine fever in the area, so far it has not been confirmed, either clinically or in the laboratory, that this terrible disease exists in Tolima or Cundinamarca departments as EL TIEMPO's correspondent reported.

It is important to explain to the people that the only laboratory capable of definitely diagnosing these problems is the Fermin Veterinary Medical Research Laboratory located on the Bogota University campus, (?which) has emphasized that so far no samples of suspected African swine fever have been received for analysis. This completely confirms the nonexistence of this disease in the country. According to the Tolima Department sanitation authorities, this area has not even had outbreaks of swine cholera, which is a common occurrence in Colombia. Therefore, that report is without basis in fact.

The ICA has alerted the people of the possible appearance of African swine fever through the various social communications media and reaffirms the necessity that the institute's veterinarians be consulted and advised promptly in order to establish appropriate sanitation measures. Following the report published in EL TIEMPO, the institute sent two specialists to the area to reassure the swine breeders. [end recording]

African swine fever has broken out in several Latin American countries. It is feared, because it decimates the swine population of any country. Colombia has a swine population of 2 million.

KENYA

BRIEFS

BLACK WATER FEVER OUTBREAK--KNA--Over 20 head of cattle have died in an outbreak of black water fever in Sericho area of Garbatulla division, Isiolo District. Garbatulla veterinary officer Mr. H. Kariuki said a compulsory cattle vaccination campaign has been started. [Text] [Nairobi DAILY NATION in English 24 Jul 78 p 4]

OFFICIAL DISCUSSES DISEASE PREVENTION CAMPAIGN

Nouakchott CHAAB in French 23 Jun 78 p 3

[Interview with Limam El Hadi, Director of Cattle Raising, by Mohamed A. Nagi, translated [into French] by A. S. El Moctar; time and place not given.]

[Excerpts] Mr Limam El Hadi, Director of Cattle Breeding, is going to talk with us detail about this fight against nature.

[Question] Mr Director, where does the preventive campaign against the big endemic diseases stand?

[Answer] The campaign began last 25 March. It lasted about two months in all. Despite the fact that the campaign's final balance sheet has not yet been published, we are going to try to give you the early results.

Our teams accomplished about 1,000,000 injections, 200 of them against (Boudmaa), 160,000 against contagious bovine pleuropneumonia (Ghirga), etc. These figures show how broad the campaign was and that consequently, it attained its objectives.

[Question] Mr Director, did this broad campaign reach different regions of our country?

[Answer] We divided the areas contaminated by epidemics into four large zones:

The first zone includes the first and second regions.

The second zone includes the third and ninth regions.

The third includes the fourth and tenth regions.

The fourth zone includes the fifth and sixth regions.

All teams were directed by a well qualified veterinarian. Finally, we must remind you that this is not yet the final balance sheet.

[Question] Just the same, can you already say that the campaign perfectly attained its objectives?

[Answer] The campaign accomplished its task in spite of the difficulties encountered, difficulties that were of three kinds:

- 1. Medications arrived late from the outside, and in inadequate quantities.
- 2. The weakness of the means available to the specialized services. This year the budget for directing cattle raising was decreased by six percent.
- 3. Weather problems. In some periods the weather may have negative effects on medications stored under uncertain conditions.

8946

MEXICO

BRIEFS

MEASURES AGAINST SWINE FEVER--The cooperation of the 33 airlines operating within our country has been requested by ASA (Airports and Auxiliary Services) [Aeropuertos y Servicios Auxiliares] to keep swine fever from invading Mexico. ASA spokesman Enrique Romo stated yesterday that special receptacles have been installed at the international airport of this capital for disposal of the organic wastes brought in by aircraft. Romo said that there is special concern over the spread of swine fever in the South American countries and that the Mexican airport authorities have established strict control measures to prevent this disease from spreading to our country. [Text] [Mexico City EXCELSIOR in Spanish 24 Jul 78 p A-5]

RABIES KILLS 400 KUDUS--Windhoek--Agricultural Technical Services have now combined forces with the Division of Nature Conservation and Tourism to research the current epidemic of rabies occurring only in one game species. To date approximately 400 kudus have died, and this figure is regarded as a conservative estimate. The rabies outbreak is at present roughly confined to the western section of the Okahandja district, and at present seven teams from the Division of Nature Conservation and Tourism are in the area to observe the behavior of sick animals in relation to their own species as well as in relation to other game species. Formerly the main victims of rabies were jackals and cattle, and experts are puzzled by the current outbreak because it is confined practically only to kudus. Although many farmers still doubt that it is in fact an outbreak of rabies, a spokesman for Agricultural Technical Services said yesterday that positive confirmation has repeatedly been received from the Onderstepoort research laboratory, where the brains of dead animals had been sent for analysis. [Text] [Windhoek THE WINDHOEK ADVERTISER in English 15 Jul 78 p 2]

RABID KUDU, COW--Windhoek: Although kudu deaths as the result of rabies continue to occur in the western area of the Okahandja district the disease is still contained in the same area, and has not spread to cattle in the region. Routine checks are still being carried out, and of 15 specimens, consisting of 14 kudu and one cow, all were positively diagnosed at Onderstepoort as being rabies. [Text] [Windhoek THE WINDHOEK ADVERTISER in English 13 Jul 78 p 2]

GOVERNMENT ORDERS ACTION TO CIRCUMVENT AFRICAN SWINE FEVER

Paris AFP in Spanish 1624 GMT 27 Jul 78 PY

[Text] Montevideo, 27 Jul--Some 250,000 pigs which are apparently in good health will be sacrificed in Uruguay on official recommendation, to prevent African swine fever from spreading to Uruguay, it was learned in Montevideo today.

A communique from the Ministry of Agriculture and Fishing adds that in the area bordering Brazil, a country affected by the disease, all pigs must be eliminated, either by taking them far away from the border or by killing them. The measure is aimed at isolating the entire northern Uruguay area from Brazil to avoid the infection.

The idea is to not have a single pig remain in a 50 km-deep area on the border, it was added.

The ministry also encouraged producers who are far from the border to avoid feeding their animals raw leftovers from hotels, restaurants or similar places and, at the same time, strengthen control measures for people entering the country with pork by-products by disinfecting vehicles, a step which is already underway.

Hunting of wild pigs and wild boars was also advised.

According to reports released in Montevideo, several Brazilian states were affected by the disease, except Rio Grande do Sul on the border with Uruguay.

Only two Uruguayan departments bordering Brazil--Rocha and Treinta y Tresare important hog producers. The others, like Colonia, San Jose and Canelones, are in the south. The total number of pigs in the country is around 400,000.

Both the ministry and producers indicated that the disease has not yet entered Uruguay and that the recommended measures are aimed at preventing important economic damage.

VINH PHU EPIDEMIC ERADICATION--Vinh Phu Province recently discovered and promptly stamped out pockets of epidemics affecting buffaloes and cattle in two villages in Song Lo District. As of late June, nearly 20,000 buffaloes and cattle in areas located around pockets of epidemics had been given anti-epidemic inoculations. [Hanoi Domestic Service in Vietnamese 0400 GMT 19 Jul 78 BK]

cso: 5400

NO LOCUST DANGER TO KENYA AT PRESENT

Nairobi DATLY NATION in English 19 Jul 78 p 5

/Text7

KENYA is not at present threatened with an invasion of the desert locusts occupying parts of Ethiopia and Somalia.

This was confirmed yesterday by two senior members of the Desert Locust Control Organisation for Eastern Africa (DLCOEA) in Addis Ababa.

Chief pilot Capt. Abebe and senior scientist Mr. J. Hamisi said the locusts were concentrated on eastern Ethiopia and northern Somalia.

Moving north

In an interview with KNA, Capt. Abebe and Mr. Hamisi said the trend of migration was fork-like. The locusts were moving north-west of Ethiopia and stretching across the northern areas of Somalia near the Gulf of Aden and at Cape Guardafui.

Reports this month of colonies of locusts in Ethiopia said six different swarms were moving from a base at Deder in the Eastern-Wait line of the country's Haraghe Region, the front formation being at Makele in Tigre Region.

The swarms in Somalia were trapped by north-easterly winds from the Red Sea and the south-westerly winds from the Indian Ocean.

The two officers said the swarms in Somalia might begin moving southwards towards Ogaden Desert for breeding, and some "may trickle to northern Kenya in September."

However, the DLCOEA was prepared to combat any invasion, they said.

The locusts in Ethiopia were expected to continue moving into Sudan at Latitude 14 degrees north if not checked.

The DLCOEA and the Ethiopian The DLCOEA and the Ethiopian government are engaged in a tough battle against the locusts and have recruited peasants to reinforce the air raids on the ground.

Among the problems facing the DLCOEA operations are unfavourable weather, which interfears with aerial spraying, and the political atmosphere

spraying, and the political atmosphere in the Horn of Africa.

INSECT EXTERMINATION CAMPAIGN—The An Giang Provincial radio station reports that in the past 2 days the campaign to exterminate insects and tend the summer—fall rice has been initiated in An Giang Province to save 20,000 hectares from being ravaged. [Ho Chi Minh City Domestic Service in Vietnamese 1200 GMT 8 Jul 78 BK]

NGHIA BINH PEST CONTROL—In the last 10 days of June, the Nghia Binh Provincial Agricultural Sector, together with various districts, has intensified its guidance and mobilized a labor force to eliminate leafrollers and leafhoppers. As a result, more than 1,550 hectares of summer-fall rice were saved from the blight. The sector is striving to save the remaining crop areas affected by harmful insects. [Hanoi Domestic Service in Vietnamese 0900 GMT 8 Jul 78 BK]

BEN TRE PEST EXTERMINATION—The Ben Tre Provincial People's Committee has set up a steering committee for the campaign to fertilize crops and exterminate insects and leafhoppers. Cho Lach, Chau Thanh, Mo Cay, Giong Trom, Ba Tri and Binh Dai districts have deployed tens of thousands of peasants with thousands of sprayers to exterminate insects and leafhoppers on ricefields, thus saving 70 to 80 percent of the summer-fall rice and early 10th—month rice areas from being ravaged by insects and leafhoppers. [Hanoi Domestic Service in Vietnamese 0900 GMT 17 Jul 78 BK]

LONG AN LEAFHOPPER EXTERMINATION—Various levels and sectors in Long An Province are concentrating on helping peasants exterminate leafhoppers which are ravaging the summer-fall rice crop and the 10th-month rice seedlings. The agricultural supply sector is supplying more than 20 additional tons of insecticides, tens of thousands of liters of fuel and 40 insecticide sprayers to various districts in the province. Duc Hoa District has launched successive leafhopper extermination drives and thus saved more than 1,000 hectares of summer-fall rice. [Hanoi Domestic Service in Vietnamese 2300 GMT 20 Jul 78 BK]

CSO: 5400 END